NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Offi-Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

24113 7590

MINNEAPOLIS, MN 55402-2100

01/12/2009

PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A. 4800 IDS CENTER 80 SOUTH 8TH STREET

EXAMINER DOWLING, WILLIAM C

PAPER NUMBER ARTHNIT

2851

DATE MAILED: 01/12/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/559,364	12/06/2005	Eberhard Piehler	3081.132US01	3619	
TITLE OF INVENTION: PROJECTION DEVICE					

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	04/13/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This f appropriate. All further c indicated unless correcter maintenance fee notificati	form should be used f orrespondence includin d below or directed oth ons.	or tran g the crwise	smitting the ISSU Patent, advance of in Block 1, by (a	TE FEE and PUBLI rders and notification a) specifying a new of					nould be completed where correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)					Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
24113 7590 61/12/2009 PATTERSON, THUENTE, SKAAR & CHRISTI 4800 IDS CENTER 80 SOUTH 8TH STREET			& CHRISTE	ENSEN, P.A.	Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmital is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE; address above, or being facsimile transmitted to the USPTO (517) 272-2888, on the date indicated between the Computer of the Co				
MINNEAPOLIS,	MN 55402-2100								(Depositor's name)
					┕				(Signature)
					L				(Date)
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nonprovisional	NO		\$1510	\$300		\$0		\$1810	04/13/2009
EXAMI	NER		ART UNIT	CLASS-SUBCLAS	S				
DOWLING, W	VILLIAM C		285I	353-097000					
"Fee Address" indic PTO/SB/47; Rev 03-02 Number is required. 3. ASSIGNEE NAME AN	ndence address (or Cha 7122) attached. cation (or "Fee Address" c or more recent) attach TO RESIDENCE DATA sss an assignce is identi in 37 CFR 3.11. Comp	nge of Indicated, Use	Correspondence ation form of a Customer E PRINTED ON	(I) the names of or agents OR, alte (2) the name of a registered attorne 2 registered paten listed, no name wi	up to rnativ single y or a t attor ill be or typ the pe	e firm (having as a agent) and the name meys or agents. If a printed. se) atent. If an assigna assignment.	memb es of u no nan	er a 2	ocument has been filed for
Please check the appropria	ate assignee category or	catego	ries (will not be pr	inted on the patent):	۵	Individual 🚨 Co	rporati	on or other private gro	up entity 🗖 Government
4a. The following fee(s) are submitted: Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies				th. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) ☐ A check is enclosed. ☐ Payment by reduit and. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposid Account Number (enclose an extra copy of this form).					
 Change in Entity State a. Applicant claims 	as (from status indicated SMALL ENTITY statu			☐ b. Applicant is n	o lon	ger claiming SMAI	LEN	ITTY status. Sec 37 Cl	R 1.27(g)(2).
NOTE: The Issue Fee and interest as shown by the re	Publication Fee (if requeeords of the United Sta	iired) v les Pat	will not be accepted and Trademark	d from anyone other t Office.	han ti	he applicant; a regi	stered.	attorney or agent; or th	e assignee or other party in
Authorized Signature _						Date			
Typed or printed name						Registration N			
This collection of informa an application. Confidenti submitting the completed this form and/or suggestion Box 1450, Alexandria, Vi Alexandria, Virginia 2231	tion is required by 37 C ality is governed by 35 application form to the ns for reducing this bur rginia 22313-1450. DC 3-1450.	FR 1.3 U.S.C. USPT den, sl NOT	11. The informatic 122 and 37 CFR O. Time will vary could be sent to the SEND FEES OR	on is required to obtai 1.14. This collection depending upon the e Chief Information C COMPLETED FORM	n or r is est indiv Office IS TO	etain a benefit by the imated to take 12 r idual case. Any co r, U.S. Patent and D'THIS ADDRESS	he pub minuter mment Trader i. SEN	tic which is to file (and to complete, including s on the amount of tire ark Office, U.S. Deptor 170: Commissioner	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450,

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80 SOUTH 8TH STREET MINNEAPOLIS, MN 55402-2100			2851 DATE MAII ED: 01/12/200	9	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 528 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 528 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)				
10/559,364	PIEHLER, EBERHA	RD			
Examiner	Art Unit				
William C. Dowling	2851				

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to Amendment received 10/3/08.
- The allowed claim(s) is/are 24-32,35-44 and 46-48.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) Thereto or 2) to Paper No./Mail Date _____
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date ____
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🗌 Other ____

Application/Control Number: 10/559,364

Art Unit: 2851

DETAILED ACTION

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: The prior art of record falls to teach or suggest an image projection system having an illuminated

Claims 24-32, 35-44, 46-48 are allowed.

reflective light valve and projection optics wherein projection optics including first and second partial optics, said projection optics having an optical axis; wherein the light source unit, during operation of the projection device, emits an illumination ray bundle for illumination of the pixels, said illumination ray bundle passing through the first partial optics, which contain at least a first lens, and then impinging on the pixels; and wherein the light reflected by the pixels being in the first state passes, as a projection ray bundle for projection of the image onto a projection surface, through the first partial optics and then through the second partial optics, and wherein, upon passage of the illumination ray bundle through the first partial optics, a respective reflection ray bundle is generated by the first partial optics at each optical boundary surface of each lens of the first partial optics, said reflection ray bundle propagating up to the second partial optics without further reflection at the optical boundary surfaces; and wherein each optical boundary surface of each lens of the first partial optics is offset and/or tilted in the reference plane relative to the optical axis such that, in a reference plane in which the optical axis of the projection optics is located and which is divided by the optical axis into upper and lower half-planes, each reflection ray bundle exiting the first partial optics Application/Control Number: 10/559,364

Art Unit: 2851

proceeds completely either into the first or into the second half-plane, in order to prevent the reflection ray bundles from being projected onto the projection surface.

Drawings

2. The drawings were received on 10/3/08. These drawings are accepted.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Dowling whose telephone number is 571-272-2116. The examiner can normally be reached on MON-THURS.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on 571-272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William C. Dowling/ Primary Examiner, Art Unit 2851

wcd